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APPLICATION NO.	CLASS	CLASS NAME TO CLASS NO.	INVENTOR OR INVENTORS	ATTORNEY OR AGENT
08/541,228	07/000,000	STARTING MATERIAL	STRICKLAND, JONAS N.	07/000,000

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EXAMINER

STRICKLAND, JONAS N.

APPLICANT

PAPER NUMBER

751

DATE MAILED 09/22/03

Please find below and or attached an Office communication concerning this application or proceeding.

Applicant(s)

SOLE DEFY A.

Art Unit

1754

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3 MONTHS) FROM THE MAILING DATE OF THIS COMMUNICATION.

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001
- 2a) ☒ This action is **FINAL** 2b) ☐ This action is non-final
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner
- 10) ☐ The drawing(s) filed on 11 April 2002 is/are a) ☐ accepted or b) ☐ objected to by the Examiner
- Applicant may not request that any objection to the drawing(s) be held in abeyance. (See 37 CFR 1.85(a))
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some * c) ☐ None of
1. ☐ Certified copies of the priority documents have been received
2. ☐ Certified copies of the priority documents have been received in Application No.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application):
- a) ☐ The translation of the foreign language provisional application has been received
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121:

Attachment(s)

[illegible][illegible]

DETAILED ACTION

Claim Objections

1. Claims 11-19 are objected to because of the following informalities: Claim 11 is dependent upon claim 11. Appropriate correction is required.
2. Claims 22-26 are objected to because of the following informalities: Claim 23 is dependent upon claim 23. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 20 recites the limitation "the filtration" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(1) the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

7. Claims 1-3 and 5-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsia (US Patent 5,260,239).

Hsia discloses an external catalyst rejuvenation system for the hydrocarbon synthesis process. Hsia clearly discloses wherein for ease of operation the rejuvenation technique can be affected at hydrocarbon synthesis conditions at whatever they may be, but preferably temperatures and pressures optimized for catalyst reactivation regeneration may be used. The regeneration rejuvenation is conducted at a temperature in the range 250-500 F and having a pressure ranging from 75 to 450 PSIA (col. 6, lines 23-33). The catalyst may be comprised of catalytic metals, such as iron, cobalt, and ruthenium (col. 7, lines 31-37). Hsia continues to disclose wherein a second metal component, such as rhenium may also be added to the catalyst (col. 7, lines 46-60). With respect to claim 10, see Figure 1. With respect to claim 11, Hsia discloses wherein the rejuvenation process is conducted on a continuous basis (col. 3, lines 65-68). With respect to claim 12, Hsia teaches wherein regeneration occurs in an oxygen environment (col. 2, lines 22-26). Since Hsia teaches wherein the regeneration occurs at hydrocarbon synthesis conditions and wherein the HCS conditions may range from 175-450 C (col. 6, lines 5-9). Therefore it would be expected for the regenerative oxidative environment to be greater than 300°C. Hsia also teaches a hydrogen treatment (col. 6, lines 34-39).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 4 and 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsia (US Patent 5,260,239) in view of Bauman et al. (US Patent 5,844,005).

Applicant claims a process for activating a regenerated, but not re-activated, catalyst comprising: introducing said catalyst into an HCS reactor operating containing catalyst rejuvenation means at HCS process conditions whereby said catalyst is activated. Applicant claims with respect to claims 4 and 20-28 wherein space velocity of the HCS reactor has an hourly gas space velocity of 100-40,000 V hr v.

The teachings of Hsia have been discussed, but Hsia does not disclose the space velocity of the HCS reactor.

Bauman et al. teaches a hydrocarbon synthesis process for catalyst rejuvenation, wherein the space velocity is 100-40,000 V/hr/v (col. 4, lines 15-18).

Therefore, it would have been obvious to one of ordinary skill in the art to carry out the HCS process disclosed by Hsia with the space velocity as taught by Bauman et al., since Bauman et al. teaches wherein it is known in the art for a hydrocarbon synthesis process for catalyst rejuvenation, to have a space velocity in the range of 100-40,000 V/hr/v. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill in the art would have expected a HCS process, which rejuvenates a catalyst as taught by Bauman et al. to have been similarly useful and applicable to a process for rejuvenating a hydrocarbons synthesis catalyst as taught by Hsia.

Hsia also discloses with respect to claims 27 and 28 fuels and lubricants (col. 1, lines 47-51).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N. Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH, 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-306-3837. The fax phone

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number for the organization where this application or proceeding is assigned is (703)
872-9306.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is 703-305-
0661.

Jonas N. Strickland
September 8, 2003


STAN
SUPERVISOR
TECHNOLOGY CENTER